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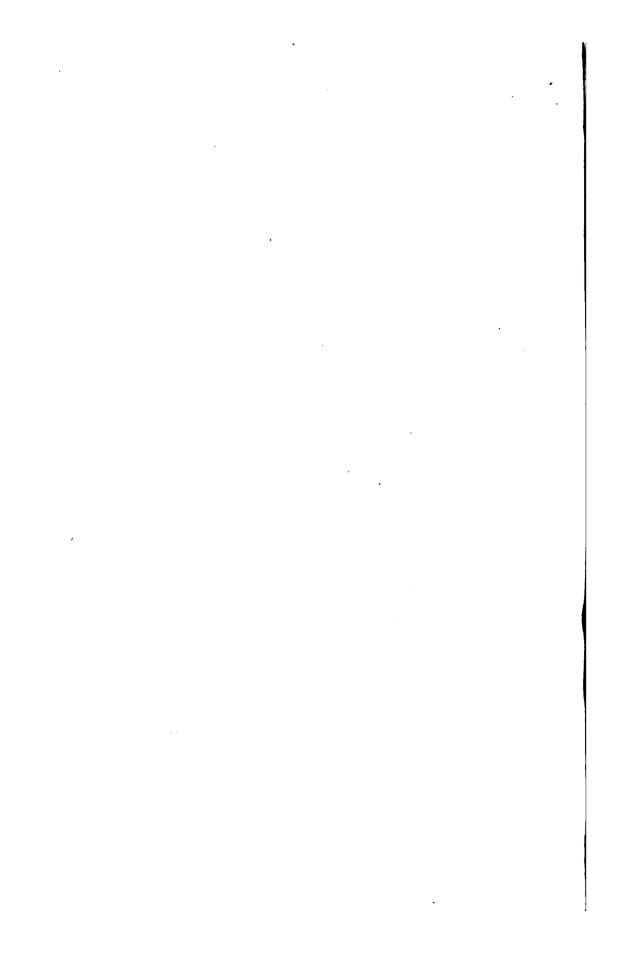


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UPON THIS SUBJECT

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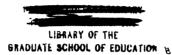
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1931

This study is a sequel to two others in this series, one entitled "The New Born Baby" and the other, "The First Year in a Baby's Life." It is to be read in connection with a parallel study, entitled "The Education of the Child From One to Three."

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AMERICAN INSTITUTE OF CHILD LIFE

THE SECOND AND THIRD YEARS.

"To be a child is to be so little that the elves can reach to whisper in your ears; . . . and it is to turn pumpkins into coaches and mice into horses, lowness into loftiness and nothing into everything, for each child has a fairy god-mother in its soul; it is to live in a nut shell and count yourself the king of infinite space."—Francis Thomson.

The Senses: Sight; Hearing; Touch; Temperature; Taste; Smell; The Muscular Sense; Organic Sensations; General Sensations; Temperament; Moods—Instincts: Individualistic: Fear; Anger—Relaxation Instincts—Adaptive Instincts: Curiosity; Imitation (and Imagination); Play—Social Instincts: Docility; Love; Desire of Approbation—The Moral Instinct—Memory—Will—Speech—Hand Activities—Summary—References.

The first three years of life have been termed the period of physical adjustment. They are characterized by a greater and more rapid development of the senses and of the control of the fundamental movements of the body and its members than any other period of equal length through life. They deserve the most careful study and attention.

Let us summarize some of the studies that have been made which outline the usual development of children, especially during the second and third years. In doing this let us avoid the snare of trying to focus with exactness the dates of the first appearance of given abilities or functions. Dr. David R. Major tells us that during a period of three and a half years of constant watching of his own two children, he saw only one acquired ability which had the appearance of coming "all at once." He uses as an illustration a search we might make in a bed of plants for the roots of an individual plant. "But when we dig beneath the surface, we may find that the stems above ground have sprung from a common root-stock or that the roots have grown together and formed a mass, so that the search for the roots of a particular plant is in vain. The child's separate abilities and functions arise out of a network of instinctive tendencies which may be likened to the intertwined and tangled rootlets from which spring the separate plant-stems. In both cases, search for beginnings is futile. Hence when it is said that an ability or function seems to burst forth of a sudden, it should be remembered that it was only seeming and not actual." If we will remember that the dates given below are only approximate and at their best only indicate the coming to the surface of stems from tangled rootlets of impulse, we shall take them for what they are worth, namely, indications of fit times when we, as gardeners, should water these tender plants.

THE SENSES.

Sight. Before a child is a year old he begins to increase in his power of recognizing objects of very small size. By the twelfth month with some children, as much as a year later with others, printed letters begin to be sought out and recognized, the letter "O," of course, being the most easily discovered. Differences of *form* in plane figures have been noticed as early as the eighteenth month.

The understanding of pictures as being representations of faces

and of other objects has been noted by different observers as early as the eighth or tenth month. The recognition of faces in photographs seems to come at about the fifteenth month. Details, such as the eyes and feet, have been recognized at about the same time. The interest in the story which may be connected with a picture has been marked at various periods from the middle of the second year to the beginning of the third.

The recognition of distance does not come quite so early. By the second half of the second year, a child has been known to think that the moon floated just beyond the reach of her arm and that a tall man a hundred feet away seemed to be a boy much nearer. We ourselves make the same sort of error, seeing distances as too short beyond the range measured by experience. It has been estimated that the space around a child to which he attributes ideas of distance and size is now

perhaps a mile.

The conception of real size comes between the sixteenth month and the end of the second year, that being the range of time in which children learn to know the difference between the words "big" and "little." It seems true to say that small children feel a complete indifference to size in identifying objects. Miss Shinn says of her niece, "Even at three years old, an elephant was an elephant, recognized easily in a three-inch toy, in a wooden sign some two feet high and in the massive animal himself, and this is natural enough when we remember that the living elephant seen some fifty feet away was no larger than her toy." "Here," as she points out, "we have probably the explanation of children's ready recognition of small photographic representations and other pictures of known objects. The father in the photograph is no smaller than the father to whom the baby waves his hand daily out of the window."

Young children do not feel much interest in solidity. They feel surfaces over for their texture, they like to feel them move under their hands and to work some change upon them, but not to satisfy curiosity as to their form. They may be taught by the end of the second year the principal solid figures. Through play they learn, also, some of the fundamental laws of physics. Some objects will stand, others will fall, others roll, some may be crushed, others not. Some, such as liquids,

run freely and cannot be grasped, while others are immovable.

Children are much later in the recognition of color than we suppose. No proof has yet been made that they have any color discrimination before the last half of the second year. Some time between the fifteenth and the eighteenth months they learn to name the difference between dark and light objects. At about the middle of the second year they are apt to make a sudden color discrimination, red, yellow, green and blue probably being the colors first distinguished, while violet, pink and brown are among the last. Pleasure in colors at this time seems to depend on their light-richness and their warmth. There is no evidence of any taste for color harmony during the first three years. Pleasure in light precedes pleasure in color, and throughout early childhood things that glitter and sparkle are enjoyed more than those of the brightest color. Evidently the first picture-books of a child might as well be, and would probably better be, printed in black and white.

The child of two months was found to be sensitive to HEARING. musical notes. By the middle of the second year he finds occasional delight in tune-playing. This pleasure probably does not become continuous until about the end of the third year. Children are capable of keeping time, some of them as early as the twelfth month, others not until they are nearly three years old. Rhythm seems to impress earlier than melody. Rhymes and jingles please by their rhythm. The earliest period of recognizing a tune seems to be from the twentieth to the twenty-fifth month. Young children differ very much as to their capacity for taking the correct pitch. Some have done so as early as the eighth month, others not until the fourth year. Nearly all young children from about the middle of the second year throughout early childhood amuse themselves with a sort of "tuneless chanting or crooning of syllables." Many of them through their happy hours sing constantly. This crooning begins with a monotone, but by the third year it grows more varied, rhythmic and modulated, until, while without any tune, it has a pleasing and musical effect. Miss Shinn's observation of her niece is not an uncommon one. "During the whole third year she occasionally chanted in words, sometimes mere fragments, sometimes little quaintly improvised verses; sometimes touching the piano softly as she improvised, sometimes dancing about joyously.

Little children seem to like noises not musical chiefly when they are unique. They seem to appeal to their curiosity rather than to any so-called "noise hunger." They like noises if they can see the noise-making process and novelties in noise or in methods of producing a familiar sound. Sounds coming in vertical directions are located with difficulty and those coming horizontally with ease, even when they are distant.

The ear comes into an importance which is destined to outstrip that of the eye as soon as the child begins to associate a given vocal sound with an object. By the sixth month a child may recognize his own name when it is called, and a little later those of members of his family. The second year is the great period for the acquisition of language through imitation.

TOUCH. The mouth is the favorite organ of touch during the first half of the first year. This is succeeded in importance by the hands. The feet are also used, until they are covered by stiff shoes.

The other touch-sensations are slow in developing. Sensibility to pain remains low during the second year, and though it increases during the third, seems less than in an adult. The transitoriness of the distress is remarkable. It is possible to distract a child easily by mental interests from pain, and in the gratification of curiosity he will undergo pain-feelings which seem to us considerably severe.

TEMPERATURE. The sense of temperature, too, seems to develop slowly. Children are, of course, sensitive to even moderate heat and cold, but they do not seem to remark them as tested by the hand until toward the end of the second year.

TASTE. The sense of taste is not careful during the first year. There seem to be no violent dislikes during this period. Children do not begin to be very particular until about the middle of the third year. Then they begin to show some hereditary tastes. A liking for acid

fruits is common before a child is a year old. A passion for salt comes early in the second year and seems to precede the taste for sugar. Meat is liked during a considerable part of the second year, and oily tastes and strong flavors come along about the same time.

SMELL. The sense of smell also is very slow in its development. There seems to be no sign of smell preceptions until at least the tenth month, and no discrimination of disagreeable smells until children are nearly three years of age.

THE MUSCULAR SENSE. Little children like to be carried, to be jostled and bumped and even to be put in positions which would make adults dizzy, but they object at a very early period to being suddenly lowered. A sense of equilibrium comes very early. The active muscular senses are the strongest characteristic of the second and third years. In the latter half of the first year there is an eagerness to creep, stand and walk, followed during the second year by complete control of locomotion and during the third year by the acquirement of considerable hand-skill. The pure feeling of muscular activity is no doubt the greatest joy in early childhood.

Organic Sensations. Hunger and thirst are the dominant sensations in every nursery. The sense of nausea is not recognized until near the end of the first year.

GENERAL SENSATIONS. Under this heading Miss Shinn classes. temperament, and makes observations concerning her niece and some other young children, which we may summarize. In her niece's case she noticed that an undercurrent of feeling seemed to have caused a stable and cheerful condition, which reasserted itself quickly after disturbances by any unpleasant impressions. During the first year this often rose to great joyousness, with no apparent cause, but this was somewhat less evident in the second and third years, as the increasing variety of specific pleasures seemed to diffuse the faculty of enjoyment more constantly. In later years this child's temperament was one of equable cheerfulness rather than one of exuberant joyousness. In another case, however, where the underlying condition was less stable, the child yielded more readily to pleasant stimulus giving a greater degree of joyous excitement; but it was also very easily disturbed by unpleasant experiences, and was more likely to feel the after-effects of joy or distress. In still others, an undercurrent of discomfort seemed often present, even when it was not possible to find direct physical causes. It seems possible that these various individual differences in temperament remain constant throughout life.

Miss Shinn also studies the matter of moods. She thinks that they are closely connected with dentition during these years, but that also the child's growing desire for interest and occupation, now outstripping her ability to provide it for herself, and making her restless, "followed by the opening up of new fields of pleasure and activity, and a consequent period of happiness, explains the successive waves and lulls of gayety." The bath, too, with its freedom of the limbs and the stimulating effect of the immersion, gives a key to a daily special mood. Even more remarkable is the exhilarating effect of the open air and of all other outdoor conditions. "Nothing in all the child's development,"

says Miss Shinn, "tempts the observer so much to theories of vague ancestral reverberations as the remarkable and overshadowing desire to get outdoors, and the endless contentment there."

Among the general sensations Miss Shinn has made a special study of those which precede and follow sleep. She notices during the first year a strong resistance to sleep, due to a desire to play and feelings of loneliness and timidity connected with the approach of sleep. After this, however, there is a disposition to confidence and affection and a sense of dependence which makes bedtime peculiarly appealing to mothers. Waking seems to be a condition of some distress, due partly to a struggle to get back to self-consciousness, which is rendered the more difficult by darkness and partly to dreams.

Instincts.

Miss Shinn earnestly opposes the impression that this period of life is largely one of vegetating; that is, one in which the young baby in the intervals of sleep lives only in the sensations connected with food. Hunger and pain are imperative, it is true, but the proportion of the total share of the baby's attention which they occupy is small. On the contrary, an incessant stream of varied sensations continually flows into the baby's consciousness. To these he is by no means neutral, but responds vividly and joyously. It is these responses to sensations of sight, touch, hearing and muscular capacity which constitute his interests. "The greediest child, in normal health and activity, does not give as much of his thought to what he eats, or find as much of his happiness in it, as many men of middle life do. The child's prime interest is in his play."

It is also noticeable, as Johnson points out, that the special interests follow directly upon the development of the senses. "With the ability to sit erect comes increased interest in seeing; with increased interest in handling objects comes a new interest in experimenting with the senses; with the acquisition of creeping comes an added interest in the room and its contents. All the way along, interest follows the line of developing powers."

First in natural order of mention come the *Individualistic Instincts*, those which help create the self. We have already spoken of the muscular sense, that composite sense which causes the child to act and react constantly. Some classify it as a definite instinct, but it seems easier to study it as the organ of the other instincts, and especially, as we shall do later, through its important expressions, Speech and Hand Activities. We must say something of Fear and Anger.

FEAR. It seems to be doubtful whether infants experience genuine fear during the first year. Babies respond to sudden shocks, sometimes with smiles and laughter or again with a fit of crying, but it is impossible to predict in advance which response will be made. A nervous, sensitive child is more likely to show fear than a child having a sluggish disposition. Major thinks that there are two general causes of fear in little children: First, strong and powerful shocks or jars, which at times arouse a vague apprehension of danger; second, ideas of possible harm, which may be the result of individual experiences or may be learned from others. To these some scholars would add a

third class of fears, caused by heredity. In general, it seems that unexpected sounds and sights are the cause of most childish fears. An unexpected caller, the vastness of the sea, a great conflagration, or a change of place of familiar objects, or change of apparel of friends, are instances of sight-fears. Animals that are strange cause fear, the small as well as the large, insects as much as elephants. Fear of storms, thunder and lightning is not universal, and may be allayed by the assurances of adults. Fear of falling seems to be instinctive and to exist from the beginning.

It is not until the fourth year that Sully discovers that higher form of fear which we call wonder. Later still comes the religious type

which we know as awe.

Anger. Anger appears so early that Major says, "The baby comes into the world prepared to act as if angry in the event the proper influences of his environment reach him." O'Shea dates anger as early as the twelfth week of life. Major names four causes of anger during early childhood: "One, when the gratification of an instinct is thwarted; second, when a pleasant sense experience is interrupted; third, when the child's purpose is crossed; fourth, when an injury is associated in the child's mind with an idea of its cause." Since all of these are as apt to be occasioned by an object as by a person, the anger of young children is as frequent against things as against friends. Says Sully: "The outburst of rage as the imperious little will feels itself suddenly pulled up has in spite of its comicality something impressive. Hitting out right and left, throwing things down on the floor and breaking them, howling, wild agitated movements of the arms and whole body, these are the outward vents which the gust of childish fury is apt to take. Preyer observed one of these violent explosions in the seventeenth month. The outburst tends to concentrate itself in an attack on the offender, be this even the beloved mamma herself. Darwin's boy at the age of two years three months became a great adept at throwing books, sticks, etc., at any one who offended him. But almost anything will do as an object of attack. A child of four on being crossed would bang his chair, and then proceed to vent his displeasure on his unoffending toy lion, banging him, jumping on him, and, as ante-climax, threatening him with the loss of his dinner." As we are beginning to see, almost all childish anger is due to check; therefore, the relation of anger to the state and development of the will is very close, and when we speak of the will, we must discuss it further.

Relaxation Instincts. Under this head are classified all the ways by which the child naturally relieves the strain of existence. Sleep, crying, giggling are familiar examples. In some instances, shyness might be so classified, though it is usually regarded simply as a phenomenon of self-consciousness. Obstinacy, where it occurs in connection with fatigue and not as an expression of intense desire or activity, may be counted as an example of the relaxation instinct at work. Instead of being an indication of strong will power, it is then the sign of a tired will. It takes some commonsense to notice the difference.

Among the so-called *Adaptive Instincts* we must consider as of first importance

CURIOSITY. Curiosity has been defined as "the appetite of the mind." "Unlike imitation and play," says Kirkpatrick, "curiosity is concerned more with the securing of sensations than with modes of action. It is an intellectual hunger, an impulse to secure and test new sensations." It is the outgrowth of the motor instincts of infancy. It involves the instinct to handle things, manipulation, collecting, running away and all the other means by which the child insists upon projecting himself into the mysterious world of which he is a part. "It is not too much to say," insists Kirkpatrick, "that curiosity is the basis of all intellectual development." Imitation and play lead to the development of the child's powers and to his acquiring knowledge of acts which he has observed by performing them himself. But curiosity leads to knowledge by observation, which in its turn stimulates him to further imitation by performing them.

The child's growing interest in persons now helps him to notice their changes in action and to wonder what they mean. But perhaps the most important advances which curiosity makes during this period are those made possible by acquiring the power of speech. Before the child can talk he must try things themselves to see how they work, but as soon as he can say "Why" he seems to have matured to the point where he not only wishes to know how things work, but why they

work; he is as desirous to know causes as results.

Shall we not classify under the head of curiosity the fondness for running away which often comes at this time? Dr. L. W. Kline made a study of this matter and found that there are three distinct periods of truancy in a child's life, of which the first comes some time between the age when the child is able to walk up to the third or fourth year. It is a habit common to all children, regardless of home life or conditions, and is "characterized by aimlessness, openness and unconsciousness of danger or any wrong," while "during their little escapade some very primitive as well as semi-barbaric practices crop out, e. g., chasing and capturing animals, begging, taking things that please their fancy, etc."

IMITATION. Imitation is an adaptive instinct which is closely related with suggestion. During the early years of the life, both of the race and of the individual, all educability depended upon this trait. It begins in the baby with imitative gestures. "Beginning with the first quarter of the second year," so Major tells us, "the imitative impulse grows stronger rapidly until it seems that the child is above all things imitative. Imitation becomes the predominant feature of all the child's behavior. Imitative actions bubble forth even when least expected." Let us summarize further from Dr. Major's interesting observations. Improvement of the child's imitative acts goes along with increasing ability to see and hear, with improvement in muscular control and with better co-ordination between muscles and sense organs. Early in the third year one may observe that the child's imitative behavior becomes more dramatic in character and that it shows a freer play of imagination than previously. In an all day's observation of a boy two and one-half years old George E. Freeland counted fifty-four imaginative games, but upon scanning a list of a similar number of the plays of a yearling, noted by Dr. Major in a much shorter time, we find not one of them that was in the least imaginative in character. Babies a year old imitate people and animals in real situations, endeavoring to mirror the world as they understand it. Beginning at about the third year, they commence to create a play-self living in a play-world. In other words, at two they imitate physically; at three

they do so mentally.

The earliest form the imagination takes seems to be in realizing that a course of action will result in a desired but unseen end. "Prior to R.'s third year, actions were imitated because they were interesting in themselves; e. g., brushing the walk and driving nails after watching another person doing these things. His interest was in the act itself. Early in the third year, we noted, for the first time, imitative acts which were performed, not so much because the copies in themselves were interesting, but because they were useful as means to desired ends. The child sees a person doing a certain thing to gain a certain end; when he wants to bring about the same result, he goes about it in the same way." A characteristic question of the child now is, "What are you doing that for?"

Imagination as it grows even looks forward to new ends. Sully noticed that the novelty of a performance enhances its imitative value in the child's eyes. So long as a person is performing some familiar act the little child seems to get about as much pleasure out of it as from his own performance, but an act that he has never performed seems to set the muscle-sense itching to do it himself and see how it feels. Kirkpatrick noted this, and explains how, during the second year, the child begins to leave off aimless play and begins purposive activity: "People, while playing with the child and also when working in his presence, often produce most interesting changes in the relations of things. Such amusement, however, lacks the feeling of muscular activity and power that is felt when the child himself manipulates objects. It is not strange, therefore, that, when he finds that he can make the same interesting changes that others make in the relation of objects and at the same time get agreeable feelings of active power, as he himself makes the movements, he should spend so much time in doing what he perceives others do, instead of merely jerking things around or watching what others do." And this, Sully says, explains, in large part, the fact that children imitate male members of the household more than they do the female, except when the latter are engaged in doing things which are new to the child. The things which the child sees his father, e. g., doing, and which are selected as copies, are relatively more novel to the child than the things which he sees others, e. g., his mother, doing. Evidently there is room for a practicing father even in the nursery.

Major believes that the imitative impulse is at the basis of much of the so-called greed and selfishness, and possibly envy, as they show themselves in little children. "R. did not take toys away from J., because, primarily, he did not want J. to have them, but because he wanted to do with them what J. was doing. That is, a strong impulse to imitate was the basis of his mistreatment, entirely unintentional, to be sure, of J."

We have in self-activity and imitation the two most powerful motive powers of young childhood. Self-activity makes the child a pioneer and a discoverer. Imitation gives him the tools by which to utilize his discoveries. And in the child's year, as Major points out, the two dovetail together nicely, because the education that comes from imitating one's elders is administered most economically in the winter, while education through self-activity is realized most fully in the warmer seasons of the year.

PLAY is the most universal activity in the world. It is the most valuable means of self-education during early childhood. As the child plays with all sorts of natural objects and forces, he comes to understand them, and as he plays by imitating he begins to enter into the experiences and perform some of the activities of the adult world around him. Perhaps the most significant thing to say about the character of play during this period is that it consists of the gradual transition from learning by handling to learning by imitating. Further, the child's learning by imitating begins with a literal reproduction of what he sees done by adults and develops into the free exercise of these activities as an expression of his imagination. We find what seems to be a normal instance of development in play in Dr. Mayor's observations of his own child. As early as the fourth month the child began to handle things, simply feeling of them in turn and throwing them aside. By the ninth month he was beginning to do things with various objects and a month later he first imitated an action which he had seen some one else perform. This imitation was the characteristic of all his play the next two years. By the fourteenth month he began to wait the companionship of others when he was playing. These others, however, had to be adults. He was incapable of playing easily or pleasantly with children of his own age before he was three years old. It was not until the child was thirty-two months old that the imitative play began to show any signs of imagination. From that time through the rest of the third year and beyond, the little child drew about a cart filled with dolls, put his dolls to sleep, made a little house and put tiny things into it which represented people, and pulled around a train of cars pretending that he himself was the engineer. The child's memory is now retentive enough so that he can recall and carry out a simple game that he has been taught, and his imagination sometimes suggests ways by which he can improve it. Still it may be said to be characteristic of all young children that they romp rather than play games.

The fundamental Social Instinct in the earliest years is Docility, or Obedience. We not only know that it is instinctive, but we may say that we know why. The reason the infant is docile is that he thinks of himself, so far as he thinks at all, as a part of all that he has met. in a very literal sense. He has not so far a distinct personality of his own. Whatever he sees he becomes, and whatever he sees done he wants to be in. "Laughing," says Kirkpatrick, "sometimes even eating, is impersonal, being almost as pleasurable when done by others as when done by the child himself. This condition usually remains prominent for a year and sometimes for several years and helps to make this one of the most charming periods of the child's life if he is dealt with wisely and lovingly. He enjoys everything that is enjoyed by those around him and wishes them to share all his pleasures, while his griefs are soon soothed by loving caresses." Scholars tell us that it is when the boy begins to use the words "I" and "you" correctly that

he gets the idea of self as a conscious being. "When the child has reached his third birthday," says Kirkpatrick, "and often long before, he not only feels a self different from other persons, but is often able to think of his own mental self as a whole as distinct from other selves, now sharing with them and now in opposition to them. Previous to this, obedience has been merely reacting to the social stimuli that so readily affect him, but now it becomes more conscious and he may oppose a good deal of resistance not merely to doing certain objective acts, but to the submission of his 'me' to the domination of another personality." Yet with the emergence of a separate personality comes also an intenser desire for the approval of those he loves.

The function of obedience is to protect the child during his infancy when he is not sensible enough to protect himself. Though by many regarded as the chief virtue of childhood, it is important not for its own sake but for what it involves. For the child's personal safety it has to be carried beyond the time when it is instinctive, through a period of habit-forming. In other words, a series of outward checks has to be devised until the child has will power enough to check himself. Much must be done in this direction even before the third birthday. Beyond that time we need to use care that we do not over-check the child and so stunt his curiosity and free activity.

Love, Sully seems to think, grows out of the sense of dependence. The baby gets used to and depends upon a human presence and is miserable when it is taken from him. He seems to feel a dim sense of oneness with that other presence. "The little girl M. when nearly seventeen months old received her father after only five days' absence with special marks of tenderness, rushing up to him, smoothing and stroking his face and giving him all the toys in the room. This sense of joining on one's existence to another's is not sympathy in its highest form, that is, a conscious realization of another's feelings, but it is a kind of sympathy, after all, and may grow into something better."

Spontaneous expressions of affection are frequent during the second year. Delay in the emotion of sympathy is explained in two ways; the child is too busy in mastering his own world to pay much attention to what is happening in the lives of others, and he has too little experience yet to comprehend what the sorrows of others mean. Yet during the second year, when he begins to separate his own personality from that of other people, the child shows grief at the grief of others and even imagines it in his own dolls. Small children are said to be selfish, but a child can hardly be called selfish who is not old enough to realize that he has a self. Indeed, infants take about as much pleasure in seeing others manipulate their toys as in doing it themselves. But during this second year, when self-consciousness appears, the feeling of proprietorship comes and the child objects strenuously to having his things used by others. The very statement that this is to be done seems to suggest the joy he will lose in not having all possible experiences himself. That is why he is a poor playfellow.

Sympathy, Sully tells us, is a kind of imitation. Out of sympathy and imitation grows another social instinct:

Desire of Approbation. This seems to arise from an innate desire to do what mother does and to be what mother is, a wish to join one's existence to mother's in every possible way. In this beautiful

mixture of dependence, imitation and affection we find some of the earliest germs of moral feeling. Even before a child can talk he often so reflects the emotional signs and feelings of others that he shares in the pleasure or disgust of the one observing him. So he adopts such pleasure as the goal of his efforts and accepts it as the test of his own goodness.

THE MORAL INSTINCT. The psychologists tell us that the child at first is neither moral nor immoral, but unmoral. "He is," says Kirkpatrick, "acting according to his natural instincts when biting and striking his mother as much as when he is hugging and kissing her. To him one act is as good as another." Experience, however, shows him that one kind of act brings pleasant approbation, while the other brings disapprobation and perhaps punishment. We have said that approbation is pleasant to a child at least partly because it strengthens the sense of oneness with his mother which he enjoys. When the little child does what his mother tells him is "naughty," he learns from her demeanor a painful sense of estrangement, and something deeper than mere outward approval leads him to try to retrieve himself. Kirkpatrick, therefore, calls this "the preparatory stage of moral development," but he declares that it is none the less important, because the foundations of a moral future are being built now upon the basis of experience and training. Regulated actions now start moral habits and these formulate themselves later into moral ideas.

Is there, then, a moral instinct from the beginning? Sully seems to think there is, and finds it in this very wish to conform to law. He calls the young child "the reverer of custom." If he is such by nature, then, says Sully, "the suffering of naughty children is not wholly the result of externals of discipline; nor is it merely the sense of loneliness and lovelessness, but it contains the germ of something nearer a true remorse." "Nor," he adds, "is this, I believe, altogether a reflection, by imitation, of others' orderly ways, and of the system of rules which is imposed on him by others. I am quite ready to admit that the institution of social life, the regular procession of the daily doings of the house, aided by the system of parental discipline, has much to do with fixing the idea of orderliness and regularity in the child's mind. Yet I believe the facts point to something more, to an innate disposition to follow precedent and rule, which precedes education, and is one of the forces to which education can appeal. This disposition has its roots in habit, which is apparently a law of all life; but it is more than the blind impulse of habit, since it is reflective and rational."

MEMORY.

The infant has certain dim powers of retention and recall, which Miss Shinn calls "habit memory." Before the middle of the first year, there occasionally comes what Major calls a sort of "after-shine" which causes the child to look after an object after it is vanished. By the ninth month, when the child begins to imitate, there is trace of memory in his endeavoring to represent the actions which he has seen, especially when he repeats them over and over. Such imitations become continuous during the second year and grow stronger as the child's

interest gets stronger. Interest, therefore, becomes the link between

attention and memory.

Major calls attention to several interesting differences between the memory of the infant and that of the adult. First, the young child's memory is not continuous; he remembers at first for only a few seconds or for a short time. Before the third year is over children have been known to remember occurrences from two to five months passed. Many things and persons, however, are entirely forgotten. Second, a little child's memories are not accurately localized in time and place. He remembers distinctly the things he has seen, but he cannot tell where or when he saw them. Third, the child's memories are at first stimulated entirely by the excitement of the senses and only gradually do they appear in connection with other memories. For example, during the first year a child would need to have a doll in his hand to suggest squeezing it to hear it squeak, but during the second year he would look around to find the doll so that he might squeeze it. Fourth, a baby's memories, unlike an adult's, are not what are called "trains of imagery." With us one idea calls up a second, the second a third, and so on, but trains of imagery are probably unknown to the child under two. In the early part of the third year, however, the thought of "grandpa" may call up the idea of "playing ball," etc. Fifth, probably during the first two years the child lacks what is known as the power of voluntary recollection. The first instance of this which Major noticed was at the twenty-eighth month.

The more frequently an impression is repeated, the greater variety of repeated interests, the more skill that is shown in doing things with the child that will suggest uses, acts, trains of imagery, the sooner and

the stronger the memory powers will grow.

WILL.

Our best psychologists are agreed that we first distinguish will in a baby when he deliberately puts himself forth in conscious effort toward some attainment. Such forth-puttings occur as early as the third or fourth month. The more difficult feat of restraining effort comes a little later, Tracy thinks from the fifth to the eighth month, when a child has been observed to refrain from reaching for an object that was much beyond his reach. This, then, would be as early as a child could obey any prohibition, since it is as early as he is able to desist. Self-will, or "a will of one's own," as we call it, seems to manifest itself at about the time when the child first begins to know the difference clearly in speech between "I" and "you," which, as we have said, is the time of first self-consciousness. This quite accords with Sully's observation that the first "battles" with children are apt to occur between the ages of sixteen months and two years. Of his own child he makes the following observation, a few days after the child was two years old:

"The most striking fact which comes out in the picture of the boy as painted in the present chapter is the sudden emergence of self-will. He began now to show himself a veritable rebel against parental authority. Thus we read that when corrected for slapping Jingo, or other fault, he would remain silent and half laugh in a cold, contemptuous way, which must have been shocking to his worthy parents. A month later we hear of an alarming increase of self-will. He would now strike each of those august persons, and follow up the sacrilege with a profane laugh." Mrs. Mumford thinks this stage indicates the appearance of a strong and in the main wholesome instinct to control his own actions. "Now he uses his own will, not so much in the pursuit of special desires, as for the sheer love of willing. He revels in disobedience, not because he desires to give us trouble, but because he consciously wants to use his own will, even in defiance of ours. She says we need not worry about this stage; he will soon cease to disobey simply for the sake of disobeying; gradually he will find that it does not pay. He will begin to foresee some of the consequences of his impulsive actions. In so doing he begins, for the first time in his life, to choose.

So with the disposition to rebel comes also, with practice, increased power in self-restraint, and it is but a few weeks before, in the case of the same child, the father makes the following encouraging remark: "By far the most respectable exhibition of will about this time was in the way of self-restraint. I have already remarked how he would try to pull himself together when prostrated by fear of the dog." A similarly quaint attempt at self-mastery would occur during his outbreaks of temper. The father says he had got into the way, when the child was inclined to be impatient and teasing, of putting up his finger, lowering his brow, and saying with emphasis: "Cliffy, be good." After this when inclined to be naughty he would suddenly and quite spontaneously pull himself up, hold up his finger and lower his brow as if reprimanding himself. "The observation is curious," writes the father in his graver manner, "as suggesting that self-restraint may begin by an imitation of the action of extraneous authority."

Whatever the child of this age does, we need to remember Mr. G. Spiller's cogent remark: "Your child may be doing what is wrong; but you should remember that he is not doing it because it is wrong." In other words, young children may be annoying, but they are innocent. A display of anger, therefore, at their conduct is not the best course, since however well it may satisfy the brute nature in the parent, it is both unfair and inappropriate to the child.

Having discussed the mental capacities of the period somewhat, let us turn now to the child's means of self-expression. Of these the two that are most interesting and characteristic at this time are Speech and the Hand Activities.

SPEECH.

The development of the child's speech seems to be somewhat as follows: Each of the first four periods of six months has its special function. During the first six months of the child's life, he engages in articulate babblings by which, unconsciously to himself, he rehearses all the vowels and many combinations with consonants. The fact that "a" is usually the first vowel to appear and that "p," "m" and "b" are the first consonants and that repetition is easier than variety, causes the infant to delight his parents by seeming to say "papa," "mama" and "baby," long before he knows that he is doing it himself. During the second six months children make very marked advance in the imitation of sounds and in the comprehension of the meaning of words and

gestures. Especially do they invent both gestures and words by which they may express their desires. For example, the syllable "da" accompanied by pointing begins as a sign of wonder and often becomes an indication of direction. Before the end of the first year many children have arrived far enough through imitation to be able to name the various persons in the home. During the third six months children are somewhat hindered in the development of facility of speech by learning to walk, but toward the end of this period they often express themselves in short sentences. These sentences are as elliptical as possible. Only the most prominent word or words in the sentence are pronounced. The child by this time uses particular words generically, as when he calls the moon a "lamp," or applies his word for ball to all round objects and calls everything a "bow-wow" which bears any sort of resemblance to a dog. During the fourth six months, or by the end of the second year, the child is often capable of quite a complicated sentence. Many of his sentences are in the imperative mood and many of them are ornamented by profuse gestures. Anything that has rhyme is easily picked up. It is during this period that he gradually masters the personal and possessive pronouns. Before he masters the word "I," the child calls himself by his proper name or by the name

"baby." Dr. Frederick Tracy has made an interesting study of the vocabularies of a dozen children between nineteen and thirty months of age. He found that the total number of different words used by these little children was from sixty-nine in the case of a somewhat backward child of twenty-two months to 677 in the case of an unusually bright child in the twenty-eighth month. The average number of different words used by children two years old would seem to be between two hundred and two hundred and fifty. Of these it was noticeable that the percentage of verbs was greater than in the language of adults. From this Dr. Tracy comes to believe that "the ideas that are of greatest importance in the infant mind and so clothe themselves most frequently (relatively), in words, are the ideas of actions and not objects, of doing instead of being. The child learns to use action words (verbs) more readily than object words (nouns); and words descriptive of actions (adverbs) more readily than words descriptive of objects (adjectives)." This would seem to suggest that the more varied activities in which a little child is encouraged to engage the larger will be his vocabulary. "The child," as Tracy says, "should not be so much the receptacle of instruction as the agent of investigation. Let him do things, and by doing he will most readily learn. He should not be passive, but active in his own education." It is well known that children who are much in the company of adults or older children learn to talk more rapidly than those who are left alone. This is due not only to imitation, but also to the fact that older people constantly are performing acts by which their speech is interpreted. A child, whom Sully instances, who first heard the word 'tired' after walking some distance, and was at the same time taken up and carried, may have associated the word either with the feeling of weariness or with the act of being taken up or both, but she often afterward said, 'Tired, carry,' when she wished to be carried. A new means of sharing the consciousness of others is thus opened to the child. Speaking words is no longer a mere vocal play or even a means of getting hunger or

other wants supplied, but of getting and sharing mental experiences. The social child is, therefore, the one who learns language most

quickly."

We can hardly overemphasize the miracle that is wrought by the power of speech. Our child now maps out his little world by learning the names of things and actions. He identifies and multiplies his thoughts-images. He tells us what he feels and thinks, he relates his experiences, he questions, he speaks out his little fancies, he tells us his love.

HAND ACTIVITIES.

Hand activities seem to have the following history. The first activities of the hand are all reflex, that is, spontaneous. As through this spontaneous but purposeless activity the hand lays hold upon various objects, it begins to experiment with them. The second stage of hand-action, then, is that of "trial and success." The third is that of imitation and the fourth is that of understanding. During the sec-

ond and third years all four are used constantly.

Dr. Major asked himself the question, When will a child, unaided, begin to feed himself with a spoon or fork? During the fifteenth month one of his children was rubbing and punching with the bowl of the spoon in a saucer from which he was being fed. The child's mother took hold of the hand which held the spoon and put it through the motion of dipping food and carrying it to the mouth. The child grasped the essential features of the movement at once, and without guidance began to rub the bowl of the spoon in the saucer, then carried the spoon to his mouth. Although he did this so awkwardly that his movements yielded slight food results, he insisted upon continuing. though he allowed himself to be fed from a spoon held by another person so long as he was permitted to wield another himself. It took him more than five months to master the complicated adjustments and to acquire sufficient control over the unruly spoon to get a fair share of the food into his mouth, and not on his bib, chair and the surrounding territory.

Similarly, the process of learning to turn a door knob and pull a door open required a little more than two months of occasional practice. For the mastering of the accomplishment of putting on his own shoes, he required much practice extending over a period of fifteen months beginning with the fourteenth. Shoe-lacing was too intricate

for a three-year-old.

The same child showed a slight preference for the use of the left hand at the end of the first year. Attention was diverted to the other hand by offering articles to it which were refused when he reached the left hand for them. Three months later the right hand began to be preferred and before the end of the second year the child was decidedly right-handed and has been so ever since. His experience would seem to indicate that left-handedness may be corrected if it is attended to early, but the question arises as to whether it might not be possible to develop the useful art of ambidexterity if the little child were encouraged to use both hands impartially. It seems probable that to do this would require a process of several years, extending perhaps up to the age of entering school.

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Dr. Major also made a careful study of his children's instinctive use of a pencil in drawing. He found nothing more than crude imitative hand flourishes in the first year, but during the fourteenth month his child was able to control a definite left-to-right motion. This was followed by a greater variety in the lines, but it was not until the last of the thirty-first month that he made an unmistakable effort to copy a capital O which had been drawn for him. At about this time he began to draw a "man." His first effort, in the thirty-fourth month, was a long space enclosed by lines. A month later he attempted to represent some arms and legs, and by the end of the third year he was inserting eyes. The difficulties which characterize all the drawings of little children (and also those of primitive peoples) are these: First, an incomplete enumeration of parts; second, the parts which are represented are placed in wrong relations to each other; third, there is little regard for the proportionate size of the parts drawn; fourth, the child's representations of the several features of the copy bear little or no resemblance to the original. Tracy accounts for all these deficiencies as follows: "For a considerable time after the scribbleelement has been tolerably well eliminated, the child is still unable to distinguish between what he sees of the object before him, and what he knows about the object. In other words, he is unable to comprehend perspective. And hence, in his pictures, he attempts, not a mere delineation, but a description of the object. He shows both eyes, and perhaps both ears, in a profile of the human face. He draws a house with three sides visible, and shows you both the legs of a man riding on horseback. There can be no doubt, in fact, that the child's earliest knowledge of an object is of a 'vague whole'; and that his comprehension of parts and relations of parts, as well as his knowledge of how the object presents itself to the observer who is viewing it from one standpoint only (as in a picture), these are achievements of abstraction which require time and experience. It seems, therefore, an unwise method that required the child to begin by drawing such abstractions as lines and points, which are never found in nature. Let him begin by drawing a whole, real object, even though he draw it ever so crudely."

SUMMARY.

The purpose of this summary is not merely to recapitulate, but also to make practical suggestions. It acts as a link between this chapter and the one upon "The Education of the Child From One to Three."

The Senses. As the child increases in his power of recognizing small objects, form, solidity and color, the parent should present to his attention objects by which he may exercise his ability. By the eighth month the parent may wisely show pictures as representations of objects and especially those in clear outline and strong black and white contrasts. Since the child is early responsive to rhythm, time and harmony, the performance of simple and strongly accented music in the home will be helpful in developing musical sensitiveness. The child may practice taking the pitch as early as the eighth month, though he may not become capable of doing it until much later. The favorite organ of touch during this period is the hands. Sensitiveness

to temperature as tested by the hand does not come until toward the end of the second year. Children begin to be particular about tastes about the middle of the third year. The discrimination of disagreeable smells comes about the same time. These facts suggest approximate dates when children may be tested and trained in these senses. The muscular sense is to be developed at the end of the first year and throughout the second year by helping the child get complete control of locomotion and during the third year in learning skill with the hands.

The child's temperament is somewhat dependent upon the proportion of pleasant experiences which he undergoes, also upon individual differences in the organic nervous system. It seems probable that the traits of temperament that are to be constant through life appear from a very early period. A child's moods are closely connected with dentition. A cheerful mood is strongly developed by recognizing the child's instinct for the open air. The occasions of falling asleep and waking seem to require the presence and attention of the mother, due to peculiar feelings of loneliness and struggle which come at this time.

Instincts. The instincts follow directly upon the development of the senses. Fear appears during the second year, caused by powerful shocks or ideas of possible harm, possibly, too, through heredity. Most fears may be allayed by the courage and attention of the mother. The capacity of anger is manifest from the beginning. Almost all childish anger is due to check and is closely related to the development of the will. Curiosity shows before the child can talk in trying things to see how they work, afterward by wishing to know why they work. Truancy is a manifestation of curiosity. The parent should skillfully present objects in turn which will excite and gratify the child's curiosity. Imitativeness during the second year is literal, but during the third it becomes imaginative. Since children imitate unfamiliar acts with the greatest interest, there should be some pains taken in the nursery to exhibit fresh opportunities for play within reach of the child's capacity. It is necessary that adults should accompany children in their play much of the time during the second and third years, especially since they do not play pleasantly with other children. Docility continues as long as the child identifies himself with the personalities of adults about him. Obedience must be continued still later, for the child's safety. Love grows out of the sense of dependence. It involves even during the first year a sense of oneness with the parent. Spontaneous expressions of affection are frequent during the second year and should be encouraged. The desire of approbation is a mixture of dependence, imitation and affection. The child gets his first moral ideas from the approbation or disapprobation of his parents. As his will develops he becomes somewhat rebellious, yet he is by nature a conformist to custom and is guided through this sense of conformity and the loneliness that follows (when he does wrong) into good habits.

Memory. The memory of the child differs in several interesting ways from that of the adult. It is less continuous, less accurate, less easily stimulated, less likely to follow trains of imagery and less under the power of voluntary control. It is exercised by imitation and stimulated by interest.

Will. We say that the child has a will when he first deliberately puts forth conscious effort toward some attainment. The ability to

restrain effort comes later. Self-will manifests itself when the child comes to self-consciousness. Its presence indicates not the desire to make trouble, but the legitimate wish for exercise. Its proper exercise is encouraged through the parallel development of the power to restrain himself.

Speech. The child develops from articulate babblings to single words accompanied by gestures and, before the close of the period, to short elliptical sentences. The child's vocabulary emphasizes verbs; therefore, opportunities for action, especially in the company of those

who can talk, develop the power of speech.

Hand Activities. The hand activities, which develop during the second year through experiment and imitation, require weeks and months of exercise. The parent, therefore, should patiently train the little child to the various useful and common activities of the home.

REFERENCES.

Note: Any book mentioned in these monographs will be freely loaned to any member of the Institute upon request. They may also be purchased, if desired. The principal sources for this monograph are as follows:

STUDIES IN CHILDHOOD, 527 pp., by James Sully, published by D. Appleton &

Company, N. Y.

A charming book emphasizing especially the moral ideas of early childhood and the child's capacity as draughtsman and linguist. There are good chapters upon "The Dawn of Reason" and "The Age of Imagination." The "Extracts from a Father's Diary" in the Appendix are evidently studies in the author's own household.

FIRST STEPS IN MENTAL GROWTH, 360 pp., by David R. Major, published by the

Macmillan Company, N. Y.

One of the most careful studies of the first three years of childhood. Among the topics considered are the following: Development of Hand and Arm Movements; Drawing; the Feelings and Their Expressions; Developments opment of Imitation, Color, Form, Memory, Imagination, Play, Pictures, Language.

THE DEVELOPMENT OF THE SENSES IN THE FIRST THREE YEARS OF CHILDHOOD, 258 pp., by Millicent Washburn Shinn, published by the University of California, Berkeley, California

of its theme. Miss Shinn makes very care-Our most painstakir ful studies of sight, he , taste and smell, the muscular senses and not only the daily records taken from the the general sensation ce, put also careful studies which have been made life of her own little by several mothers.

Or several mothers.

THE PSYCHOLOGY OF CHIL' 20 pp., by Frederick Tracy and Joseph Stimpfl, published by ... C. Heath & Company, Boston.

A scholarly study of early childhood. The divisions of the book are:

The senses, the intellect, feelings, the will, language, esthetic, moral and religious ideas and psychopathic conditions in child life. Many helpful little illustrations are given from the study of individual children.

illustrations are given from the study of individual children.

The Individual in the Making, 339 pp., by E. A. Kirkpatrick, published by the Houghton, Mifflin Company, Boston.

A very valuable study of all the periods of child development. The chapters upon the first three years are good and contain incidents from various children. There is also a good chapter on interest.

The Dawn of Character, 225 pp., by Edith E. Read Mumford, published by Longmans, Green & Co., New York.

Mrs. Mumford approaches child study from the standpoint of psychology. Her chapters upon the growth of the child's mind, the growth of imagination, the law of habit and her two chapters upon the will are espe-

imagination, the law of habit and her two chapters upon the will are especially cogent.

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